MODIS Technical Team Meeting
Thursday, September 27, 2001
Building 33, Room E125
3:00 PM

Vince Salomonson chaired the meeting. Present were Bill Barnes, Jack Xiong, Wayne Esaias, Dorothy Hall, Ed Masuoka, Steve Kempler, Chris Justice, and Eric Vermote, with Rebecca Lindsey taking the minutes.

1.0 Schedule of Upcoming Events

· MODIS Science Team Meeting Tentative: December 17-19, 2001
Location: BWI Marriott

2.0 Meeting Minutes

2.1 Instrument Update:
Barnes reported that Aqua thermal vacuum tests including MODIS FM-1 might be completed next week. He reported that Ken Anderson says the manifest shows an Aqua launch on March 24, 2002. One of the tests on FM1 was done improperly, and they will try to redo it. They think an improper test set up caused the inability to cold start during testing.

MCST is still looking at imagery from Bob Evans that showed problems with images made from Direct Broadcast data. There is some indication that there is a software problem, maybe Direct Broadcast software. They are going to look at normal processing stream data, and see if the problem is present there, too. They are receiving data from the DAAC now.

Salomonson asked MCST to provide MAST with a high level summary for the instrument news section of the MODIS home page on a regular basis so that the page could be kept more up-to date.

2.2 Data Processing
Kempler reported that they would be adding a status page on the MODIS section of their web site that will have the daily processing plan, with what they plan to process, when they will be down—as well as a history.

They are processing forward slowly. Three systems are running: one machine going forward, one for special requests, and another for reprocessing, which is going very well. That is the fastest machine (s4pm). It is running over 2x on the reprocessing stream, even 3x or 4x sometimes. Forward processing is slightly less than 1x.

With respect to the distribution volumes, Kempler reported that analysis of volumes by ftp, subscriptions, and media. We are finding that the increases we have seen are in

subscriptions, but mainly those are for calibration team. Between 10 and 15% of MODIS volume is being distributed, not counting the data going to CERES. Including the distribution to CERES, it is about 30%. JPL is starting to get SST data as well, which is bringing our distribution numbers up. Esaias said JPL is currently getting 4.6 km, products but they may also get the other resolution products as well on media, perhaps.

Masuoka reported that the Goddard DAAC has processed up to 11/21/00 on the reprocessing stream, but there are some open days with missing granules, which means MODAPS is waiting for them to close before it can begin. MODAPS has completed through 11/8. With respect to forward processing, seven days are open, and none are closed. One of those days is close to being finished. They are about two weeks behind current, which may be a good lag time for them to maintain, to allow for hiccups in data stream. Esaias asked about what the MODPAS considers a complete day. Masuoka says they try to wait for 288 granules unless they know for some reason that the granules would never arrive.

Salomonson reported that in a snow meeting, George Riggs asked whether if at the end of this "consistent year" processing the scientists would have a chance to try new algorithms. He indicated that reprocessing would occur again at some carefully chosen time after the present reprocessing effort (so-called "consistent year") is completed. At that time new, improved algorithms will be utilized, of course. Salomonson did remark that it seems that there is a clear need for an improved capability (i.e., a separate string) to do more complete testing of algorithms and attendant code before it is injected into the "operational" systems. This conceptually has been the role for the SDST, but SDST just doesn't have the capacity to do a full global test on several weeks of data.

Salomonson asked Hall to discuss her experiences with ordering snow and MOD 09 data products using the EDG. Hall felt that there are three areas that hamper users. First, there is the HDF-EOS format, which many people don't like, although she says she herself doesn't have a problem with it. Kempler commented that alternative formats are now available. This is a big issue at PoDAG.

The other issues are a lack of a browse product and frequent data center downtime. It can be a multi-day search to get your data because you have to search and order the granule you want, wait to download it, then see if it is cloudy, for example. If it is cloudy, you have to go through it all again, and if the center is down, it takes even longer.

She says there is the MODLAND 5-km browse, which is good for many things, but it can't tell if your granule is cloudy. She said that the new atmosphere L1B browse is very good for that purpose, but not all users know of this. She compared the complexity of the process with Landsat ordering, which takes you to the data with a browse, and then you click on the thumbnail image to order the data. In all, it might take three minutes if you knew your study area. Getting a MODIS granule can take days. She drafted an email about her concerns, which Kempler said he would forward on to the ESDIS project.

Hall said that as a stopgap measure, they are going to put the 8-day CMG products on the MODIS Snow Products Home page with thumbnails. When she called Greg Scharfen at the NSIDC DAAC to discuss whether the NSIDC should or could perform this function, he said that there were issues that lead to the conclusion that NSIDC would instead link to Hall's page.

Justice commented that the MODIS 250-m system was based on that idea, where a thumbnail links to a larger image, and you can click on it to get the data. It is easy.

Vermote said that he thinks that if you go to the MODIS no-frills access at the GES DAAC you get browse, but not all DAACs have that. Masuoka explained that incorporating higher level browse at the DAACs via the EDG is complicated because all the browse imagery would have to be specified before hand, and sent in before any of the actual data were sent.

Masuoka added that the team had previously made a decision not to define browse at the DAACs, and that each team would have to make that decision. Esaias thought that we should think about how we can develop a good browse for all disciplines.

2.3 Oceans Update
Esaias reported that they have a QA/browse page based on 36 km maps; you can see all 40 products, with thumbnails and statistics. You can look at time series, and if you want to order the product, it takes you to the TerraWHOM. They composite based on quality levels. Esaias noted that many of the products coming out of the "collection 3", three-month period (March through early June 2001) are looking very good. David Herring is going to help them do a press release or public announcement about this new three-month period of really improved products.

2.4 Cryosphere Update
Hall is putting together a year's worth of snow cover, month to month, and creating visualization, maybe on a rotating globe or other effective visualization approach. Justice commented they could do something similar for fires.

2.5 Conclusion
Salomonson indicated that today (9/27) was the last day to submit comments on the software usage agreement related to the release of MODIS software He thought that the software usage agreement is very nearly ready to go. The usage agreement and the software most likely will be available via Pat Coronado's MODIS Direct Broadcast page. Esaias expressed concern that the software would not be distributed by the DAAC. Kempler said he felt confident that Coronado and the DAAC could work together to ensure that the software distributed is the most current version.

3.0 Action Items

3.1 Discipline leads to meet to resolve the issue of beta-release code and science-quality code, and what we need to say about it.

Status: Open.

3.2 Technical team to discuss further the issue of predicted ephemeris data and how to improve it.

Status: Open.